ABSTRACT OF THE DISCLOSURE

A folded fin heat sink assembly and a method of fabricating a folded fin heat sink assembly for use as a cooling solution in micro-electronics and/or telecommunication applications. The heat sink assembly is formed by placing a sheet or paste of Sn-Zn solder upon a copper base plate, placing one or more aluminum folded fin assemblies on the solder sheet or paste, heating the base plate, the folded fin assembly and the solder to a temperature exceeding the liquidus temperature of the solder and allowing the solder to flow, and cooling the solder to form a soldered joint between the base plate and the folded fin assembly.